

# United States Postal Service Alternative Fuel Vehicle Programs

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National Clean Cities Conference March 12, 2002

### **Background**

- Postal Service has led every transportation revolution-railroads, automobiles, and especially air travel.
- The first electric delivery vehicle was introduced in 1899.



First electric delivery vehicle

- Largest AFV fleet in the world.
- Significant implementation began in early 1990s -- 7,500 vehicle conversions to bi-fuel CNG.
- Diverse technologies -- CNG, Ethanol, Biodiesel, Electric and Propane.
- Difficulties and successes throughout history of fleet.

### **Background**

## The Postal AFV Fleet: Currently ~30,000 AFVs => ~15 percent of postal fleet.

- **Ethanol Flex-fuel 23,743**
- □ Natural Gas 7,862
- □ Biodiesel ~200 heavy duty vehicles, over 600,000 gallons of B20 used in FY01
- **□** Electric -- 572
- □ Propane 41

## **Alternative Fuel Vehicle Program**

## Legislative, Regulatory and Executive Drivers

- Energy Policy Act of 1992 (EPACT) -- 75%AFVs
- Executive Order 13149 (voluntary compliance) --20 percent petroleum reduction
- Clean Air Act Amendments of 1990 (CAA) CFVs, emissions based, varies geographically.
- State and regional laws and regulations,
   e.g., California Air Districts -- complicating compliance

# Alternative Fuel Vehicle Program <u>Benefits of AFV Programs</u>

- Alternative fuel usage is steadily growing.
- Better serving our communities.
- Contributing to the advancement of the industry and infrastructure.
- Contributing to public education and acceptance of AFVs.
- Assisting states in meeting their SIPs (CAA-State Implementation Plans).

### **Challenges**

- High Cost of compliance.
- ∠ Limited infrastructure--low fuel usage.
- Matching technology with application.
- Unaccounted costs, e.g., training, facility upgrades.
- AFVs often are not readily available that meet unique USPS requirements.
- Departure from a uniform fleet to the mgmt. challenges of a diverse fleet.
- Example Few resources diluted among several technologies.
- AFV Fleet is aging, starting to turnover

#### **Lessons Learned**

- AFV fleet acquisitions require 'system' thinking--not just vehicle purchase.
- Requires changes to fleet deployment planning.
- Importance of concentrating AFV deployments to attract infrastructure and achieve economies of scale.
- Partnering with government agencies, other organizations, as well as vehicle and fuel industries can be key to success.
- Purchase from manufacturers that will reliably provide parts for the life of the vehicle.
- Success will be limited until costs and negative impacts to operations are overcome.

#### What's Next?

- Opportunities in conflict with mandates and direction of Administration, e.g., hybrids, HDVs.
- New energy legislation.
- Federal agencies are in unique position to inform legislative process and policy making.
- Legislation and/or market must reach beyond currently mandated fleets.